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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/16/2001

Jung-Hwan Choi

9898-199

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12/05/2003

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EXAMINER

DUONG, KHANH B

ART UNIT

PAPER NUMBER

2822

DATE MAILED: 12/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/978,497

Applicant(s)

CHOI, JUNG-HWAN

Examiner

Khanh Duong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 12-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 25-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Response to Amendment

This Office Action is in response to the Response filed on May 5, 2003.

Accordingly, no claim was amended, and claims 12-24 remain withdrawn from consideration as being directed to a non-elected invention.

Currently, claims 1-11 and 25-31 are active.

Response to Arguments

Applicant's arguments with respect to claims 1-11 and 25-31 have been considered but are moot in view of the new ground(s) of rejection.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following features must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Specifically:

Re claim 10, "the socket body is arranged to load the first and second memory modules in opposite directions".

Re claim 25, "a plurality of adjacent contacts" on the surfaces of the first and second memory modules.

Re claim 28, "a plurality of adjacent contacts" on the surfaces of the first memory module.

Re claim 31, "the socket body is arranged to load the first and second memory modules in opposite directions".

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-5, 7-11 and 25-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 4, 7, 8, 11, 25, 28 and 29 recite the limitation "the other surface". There is insufficient antecedent basis for this limitation in each of the claims.

***Other claims are rejected as depending on rejected base claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002

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do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 3, 7, 8, 10, 11, 25, 27-29 and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by Kim et al. (US 6,382,986).

Re claims 1 and 3, Kim et al. discloses in FIG. 3 a through socket comprising: a socket body 110 arranged to load first and second memory modules 116 and 118 in opposite directions; a first conductor 102 arranged to connect a contact on one surface of the first memory module 116 to a contact on one surface of the second memory module 118; and a second conductor 104 arranged to connect a contact on a second surface of the first memory module 116 to a contact on a second surface of the second memory module 118.

Re claims 7, 8, 10 and 11, Kim et al. discloses in FIG. 4 a turn-around socket comprising: a socket body 110' arranged to load first and second memory modules 116 and 118 in opposite directions; a first conductor (102 & 104) arranged to connect a contact on one surface of the first memory module 116 to a contact on a second surface of the first memory module 116; and a second conductor (102 & 104) arranged to connect a contact on one surface of the second memory module 118 to a contact on a second surface of the second memory module 118.

Claims 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Walker (US 5,788,510), previously cited in Paper No. 2.

Re claims 4-6, Walker discloses in FIGs. 1, 2 and 4 a through socket 20 comprising: N conductors 62 are arranged to connect contacts on the surfaces of the memory modules 22 in a

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daisy-chain configuration (via carrier strip 60) in which a contact on each of the first through N-1 modules 22 are connected to a contact on the next-successive module 22, and a contact on the Nth module 22 is connected to a contact on the first memory module 22.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 2, 9, 26 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. in view of Koyama et al. (US 6,382,983).

Re claims 2, 9, 26 and 30, Kim et al. discloses the socket body being arranged to load first and second memory modules in opposite directions, instead of the same direction.

Koyama et al. teaches a socket body (2 and 3) being arranged to load first and second memory modules (6 and 23) in opposite directions (see FIG. 17) and the same direction (see FIG. 21).

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Since Kim et al. and Koyama et al. are both from the same field of forming sockets for mounting memory modules, the purpose disclosed by Koyama et al. would have been recognized in the pertinent prior art of Kim et al..

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the socket body of Kim et al. according to the teaching of Koyama et al., since Koyama et al. states at column 5, lines 60-67 that such modification would minimize wiring distance and enhance impedance match.


Conclusion

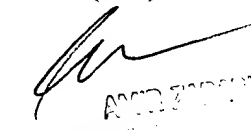
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh Duong whose telephone number is (703) 305-1784. The examiner can normally be reached on Monday - Friday (9:00 AM - 6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amir Zarabian, can be reached on (703) 308-4905. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


KBD
November 29, 2003


AMIR ZARABIAN
SUPERVISOR
TECHNICAL STAFF